## Rohan Sahni

Python Developer

## Employment History

Overt Ideas and Solutions, Bengaluru/WFH

Nov 2022 - Present

- Frappe HRMS App: Hosted a Human Resource Management App using the Frappe.io framework, featuring custom DocTypes and core functionalities like attendance tracking, payroll, etc.
- Banking Ticketing System: Developed an AI-powered chatbot using
   Flutter, FastAPI, and Ollama, integrating Deepseek LLM to process
   customer queries and complaints efficiently. The system leverages GenAI
   for intelligent response generation based on the bank's documentation,
   reducing manual intervention and enhancing customer support.
- Croma Store App: Created a GenAI-driven retail assistant using Flutter, Gemini API, and Flask API to personalize the in-store experience for Croma customers. By utilizing advanced AI models, the app provides tailored recommendations, instant product insights, and interactive engagement. Our team secured a top 5 spot in Google's GenAI Hackathon.
- Overt-Wise: Designed a platform for Hack4Change Charcha Hackathon
  to democratize knowledge access for students, ensuring equitable
  learning opportunities. Implemented GenAI-powered features with
  JavaScript APIs and Django to match students with curated resources
  and mentorship programs, bridging the gap between potential and
  opportunity.
- Karnataka State Police Datathon 2024: Built an AI-powered traffic
  monitoring system, shortlisted in the hackathon. The app uses Computer
  Vision and Streamlit to report live traffic incidents and optimize road flow
  in real time, aiding better traffic management and safety.
- Face and Intruder Identification System: Real-time face recognition for attendance tracking while also offering enhanced security through intruder identification and tracking from the database using Python modules for computer vision like OpenCV and YOLO. The model identified an already detected object as a known or intruder face. The features of that intruder are then learned in real-time and then tracked over multiple camera setups on Streamlit Dashboard.
- Automatic Traffic Violation System: Led a team to develop a
  comprehensive traffic management solution designed to detect all sorts
  of traffic violations like helmet detection, wrong lane violation,
  overspeeding, red light violation, and automatic number plate
  recognition. We used OpenCV and YOLO to train our models over the
  annotated data and then later deployed them using Streamlit.
- Overt Meet: Made a self-hosted online Conference Meeting Application using Django and an open-sourced software, Jitsi, into the platform. It empowers users to conduct peer-to-peer or conference video meetings. It offers in-build chat support, screen sharing, custom room names, remote desktops, and recording of meetings. It required two server setups one for the video bridge and another for running Django.

#### **Details**

Chandigarh, India +919992520053 rohansworkid@gmail.com

#### Links

**Portfolio** 

LinkedIn

Medium

**GitHub** 

My Startup

#### **Skills**

Python · FrappeIO· Streamlit · Sklearn · Django · APIs Flask · FastAPI · HTML/CSS/Javascript · NumPy · Pandas · SQL · Game Development · OpenCV · Computer Vision

## Rewards & Recognitions

Juggernaut Award Byju's •March 2022 D&I Champion Award Byju's •Nov 2021 Rookie Rockstar Award Byju's •Sep 2021

#### Developer at Byju's Think & Learn, Bengaluru

June 2021 - Nov 2022

- **Transletto:** Created a software named Transletto to extract, filter, and modify information from .sb3 files. The tool effectively translated US-EN assets into Spanish. Technologies used: Pandas, Kiwi, Machine Learning, Python, and T5 Transformer Model.
- Samaritan: Created an in-house copy-edit tool to highlight and rectify
  copy-edit errors in online documents, which saved the time and effort of
  copy-editors by 70%. The tool successfully fixed content-related issues,
  conventions, and mathematical equations. Google Apps Script, Python,
  HTML, CSS, and JavaScript were used to train and deploy the model as a
  Google Chrome extension.
- Developed 5+ Math-based games for Byju's Math App using Construct 3 JavaScript-based game engine software. (Video links in the Portfolio)
- Worked on AppleScript with a team to automate report card generation for students just after the live class.
- Modified the open-source version of the Scratch platform (Developed by MIT) to customize the UI and added an additional extension to it.
   Technologies used: React. HTML, CSS, and JavaScript.
- Developed and maintained tech assets for the White Hat Jr. Capstone Team. Capstone was a unique project aimed at teaching kids G1-8 math with the help of interesting coding projects.

# Coding Instructor and Research Assistant at Robogenius Innovation Studios, Chandigarh

June 2019 - June 2021

- Taught students about Lego Robotics, Python, 3D Printing, Arduino(TinyML), and Machine Learning in 5+ schools.
- Led Python and Machine Learning curriculum and delivered 100+ classes online to national and international students.
- Worked with a team to research and develop new learning material for students.
- Coached a team for J. First Lego League 2021.
- Authored review papers on Artificial intelligence along with students.

## Education and Publications

#### B.S Computing and Data Science Online Degree, IIT Madras

June 2023

Currently enrolled in the diploma level of the degree course.

# B.Sc - M.Sc Integrated Program in Physics, Panjab University, Chandigarh

July 2014 - July 2019

M.Sc Project: Reviewed a methodology proposed by Kaschuee on PhysioNet's MIT-BIH Dataset and then compared its accuracy on arrhythmia classification using different optimizers.

#### My Published Papers

1. "Tackling the problem of multilingualism in voice assistants." International

Journal of Electrical, Electronics, and Computers, Vol 9, Issue 5, Oct 2024.

- "Interaction Between Artificial Intelligence And Mechanical Engineering." International Journal of Research in Applied, Vol 7, Issue X, Oct 2020.
- 3. "Review of Artificial Intelligence Driven Chemistry." International Journal of Research and Analytical Reviews, Vol 7, Issue 4, Oct 2019.
- 4. "Review of Artificial Intelligence in Electrical Engineering" International Journal of Scientific Research & Development, Vol 7, Issue 09, 2019.

## Courses and Workshops

STC Course on Artificial Intelligence & Fuzzy Logic, NITTTR - Chandigarh

July 2018 - July 2018

Machine Learning and Artificial Intelligence Workshops, E&ICT Academy IIT Roorkee

January 2019 - January 2019

## Internships

Volunteer at Laser Interferometer Gravitational-Wave Observatory - INDIA, New Delhi

January 2021 - February 2022

 Increased awareness about gravitational waves and the new laser interferometer gravitation-wave observatory (LIGO) that will be located in India as part of the worldwide network.

Intern at Center for Research in Applied Cognitive Science, Mohali

January 2017 — March 2022

- Served as a dedicated and supportive Intern in a fast-paced environment. Reviewed standardized cognitive and psychological assessments for personalized skill development of children.
- Learned about the Bloom Taxonomy, Cognition, and Neocognitron.

## Extra-curricular activities

NCC Cadet at Panjab University, Chandigarh

July 2014 - July 2019

Received Award of Honor for representing Panjab University in Directorate-Level Republic Day Parade Camps.

### **★** References

Available on request.